



Unmanned, unmatched, unafraid

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The
Little
Plane
that
Could

A sniper fires on a U.S. patrol as it rumbles through Iraq. The U.S. forces can't locate him without exposing themselves to fire, and they're pinned down.

Help comes in the way of a Predator. Being a remotely piloted aircraft, it can boldly fly right into the face of danger. Located more than 7,000 miles away, at Nellis Air Force Base, Nev., the pilot has no concern for his safety. A powerful camera with multiple lenses acts as the pilot's eyes.

The Predator circles like a hawk, casting a small but deadly shadow over the building suspected of harboring the sniper. It locates him on the top floor of the building, close to the center. Although it looks deserted, the military doesn't want to inadvertently destroy the entire building and everything around it. Just take out the sniper.

The predator pilot fires a hellfire missile directly into the window. In a puff of smoke, the threat's eradicated.

That precision endeared the Predator to the military during Operation Deliberate Forge in Tazar, Hungary, in 1995. Since then, it has been involved in every major operation, including its current role in the global war on terrorism.

"Once you use it, you wonder how you got along so long without it," said Lt. Col. John Breeden, 11th Reconnaissance Squadron commander at Creech Air Force Base, Nev.

Evolution gone awry

When it first made an appearance, the Predator's main function was to spy on the enemy. It could fly into enemy territory for up to 24 hours before returning to base. Nothing in the Air Force inventory could do that. However, like a Charles Darwin species gone awry, the Predator evolved at a startling pace. As it changed, its mission expanded.

From 1995 to 2000, the Air Force used the aircraft primarily for intelligence, surveillance and reconnaissance. In 2001, its mission evolved to include counter-land missions, with a laser beam to point out targets and help fighter pilots to their objectives. While that was happening, Gen. John Jumper, who at that time was the Air Combat

The MQ-1 Predator isn't used just for spying anymore.

Armed with Hellfire missiles, the Predator is dangerous to the bad guys. Like a Charles Darwin species gone awry, the remotely piloted aircraft is evolving at a startling pace.

Command commander, thought that since the Predator was already flying around enemy territory, why not put missiles on it? In one short year, it became armed and dangerous.

The MQ-1 Predator can carry AGM-114 Hellfire missiles capable of piercing armor. The next generation MQ-9 Predator is designed to haul up to 3,000 pounds of external ordnance to include the GBU-12, GBU-38, AIM-9 missiles and small diameter bombs.

The Predator's missions include ISR, close air support, interdiction, damage assessment, combat search and rescue (locating downed pilots), force protection (locating improvised explosive devices) and remote operations video enhanced receivers operations.

The receivers allow the Predator to share what it sees by feeding real time, full motion video to other airplanes or ground troops. Now everyone can see what it sees, which helps place bullets and bombs on target.

There's even talk about using the remotely piloted aircraft for microwave-directed energy weapons. The plan is to have a radar transmitter generate microwave energy and use it to fry electronic gear or zap humans into unconsciousness without inflicting permanent brain damage.

Feel the need for speed

With its expanding mission, other services are clamoring for the Predator, especially ground troops. And although the Air Force can purchase Predators at about \$4 million a pop, it can't produce pilots quickly enough.

"Our challenge is how to grow as fast as possible," said Colonel Breeden at the Predator schoolhouse on Indian Springs Auxiliary Air Field, about 40 miles north of Las Vegas.

Last year, the school pumped out 40 pilots. This year they expect to graduate 57, and next year 80 — a 100 percent increase in two years, all without an increase in staffing.

After graduating on a Friday, a pilot may spend the weekend with family and friends and on Monday morning report to work at Nellis and fly a combat mission in Iraq or Afghanistan.

"When they're done with a combat mission, they get to go home to attend their kid's Halloween party," said Maj. Clayton Marshall, who's been a Predator instructor pilot since November. "It's unique to be a



An MQ-1 Predator buzzes along on a Creech Air Force Base, Nev., flightline.

Predators have been around since 1995, during operations in Bosnia. Predators are now integral to Operations Enduring Freedom in Afghanistan and Iraqi Freedom. It took nearly a decade, but the Predator achieved initial operating capability in February.

pilot and get the chance to do that."

As a former F-16 pilot, Major Marshall had mixed emotions about his assignment to the Predator program. He said civilians think it's a neat job. Other fighter pilots cast him a sympathetic look. But, after having moved nine times in 12 years as a pilot and a weapons systems officer, he likes the stability the Predator program affords him.

The major said the most challenging aspect to teach is situational awareness, the ability for pilots to know where they are in relation to everything around them.

"In an F-16, all you have to do is look out the cockpit window," he said. "When flying a Predator, you only get to look at the displays."

Pilots use two keyboards and a joystick to fly the craft, and they have to learn the key strokes similar to the old DOS commands of first generation computers.

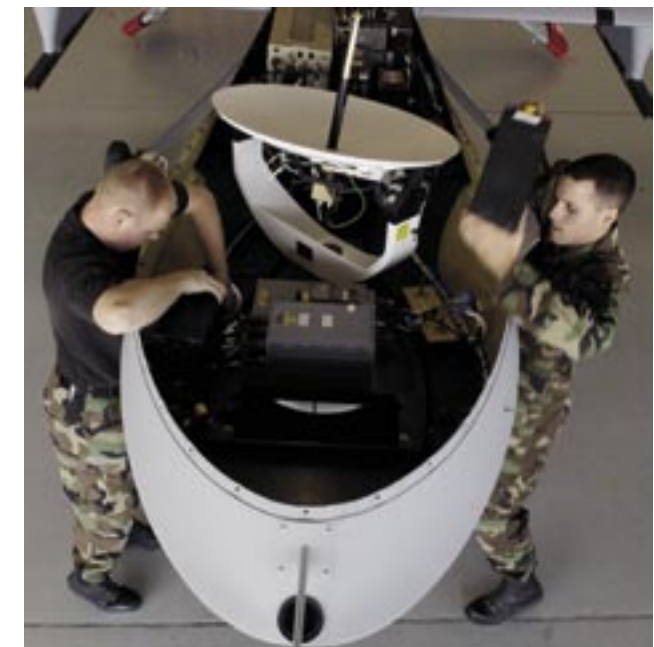
Enlisted co-pilots

Another aspect of the Predator program is having enlisted Airmen as part of the crew.

"When I was flying fighters, I interacted mostly with



The Predator program consists of more than just pilots and planes. Airman 1st Class Geoffrey Kurtz (left), 57th Wing, gathers data from a Predator primary satellite communications link. Senior Airman Nathan Velin and Airman 1st Class Eric Capuano (right), avionics systems apprentices, install new batteries into a Predator. Pushed to its limits, a Predator can fly up to 24 hours.



officers,” the major said. “Here, I’m working side by side with sensor operators and the rest of the troops.”

Enlisted sensor operators are responsible for controlling the camera mounted on a ball located just below the nose of the craft. Sensor operators are trained imagery analysts who perform a job similar to a weapons systems officer.

“It requires good hand-eye coordination,” said Staff Sgt. Angela Guzman, a sensor operator instructor at the schoolhouse. “The hardest part is operating the camera with a two-second delay.”

It’s like using a DSN line to call home from overseas and experiencing a slight delay in communications. It can easily throw a person off. Because Sergeant Guzman is operating the camera from a third of the way around the earth, the time it takes for the signal to bounce off a satellite to a desert location takes about two seconds. That’s why Nellis crewmembers don’t land or launch Predators. Crewmembers in that part of the world do that, and then pass the controls to Airmen in the States.

“This is the most rewarding job for enlisted [people] because we’re part of the mission, and it’s very gratifying. We play a huge role in the global war on terrorism. It’s just amazing,” Sergeant Guzman said.

Other crew positions include a mission coordinator, who assists in planning coordination with a customer, and the operations cell, which fulfills mission support, targeting, threat assessment, imagery and coordination.

More allies live, more enemies die

British and Italian aviators are also included in the mix of the Predator program, as are contractors, Air Force Special Operations Command, and the Guard and Reserve. In fact, in December 2004, Colonel Breeden became the first reservist to command an active duty unit. It falls in line with Secretary of Defense Donald Rumsfeld’s vision of “future total force.”

Plans include incorporating the UAV into the Guard and Reserve to support global operations. Texas and Arizona Air National Guard units will operate the Predator from their home states. Because of the low Guard and Reserve turnover rate, the Air Force expects a significant reduction in training costs associated with the program.

“We’re having an effect on the battlefield,” Colonel Breeden said. “Because of us, more allies live and more enemy die.” ♡

by Staff Sgt. Cohen Young



Capt. John Songer and Airman 1st Class Stephanie Schulte, both deployed to Southwest Asia, work side by side while controlling a Predator flying over Balad Air Base, Iraq. Both had deployed from Nellis Air Force Base, Nev., to support Operation Iraqi Freedom. While the deployed crew lands and launches Predators, stateside crews may actually fly the mission.